

**MASSACHUSETTS  
DEPARTMENT OF ENVIRONMENTAL PROTECTION**



**Nonpoint Source Management Plan  
Volume 4**

**Watershed Nonpoint Source Action Strategies  
2001**



**EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS  
BOB DURAND, SECRETARY  
MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION  
LAUREN A. LISS, COMMISSIONER  
BUREAU OF RESOURCE PROTECTION  
CYNTHIA GILES, ASSISTANT COMMISSIONER  
DIVISION OF WATERSHED MANAGEMENT  
GLENN HAAS, DIRECTOR**

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MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION  
DIVISION OF WATERSHED MANAGEMENT  
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WORCESTER, MA 01608

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NONPOINT SOURCE MANAGEMENT PLAN –VOLUME 4  
WATERSHED NONPOINT SOURCE ACTION STRATEGIES

Researched and Compiled by:

Tracey Miller-Western Regional Office  
Brian Duval-Central Regional Office  
Jeffrey Brownell-Southeast Regional Office  
Rosalia Barber-Northeast Regional Office

Department of Environmental Protection  
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# **MASSACHUSETTS NONPOINT SOURCE MANAGEMENT PLAN**

## **UPDATE 1999-2000**

### **EXECUTIVE SUMMARY**

The Nonpoint Source Management Plan was originally developed by the Department of Environmental Protection in 1988 pursuant to Section 319 of the Clean Water Act (33 U.S.C.A., Sec. 1251 et. seq.). The current document ( revised in 1994 and again in 1999) is a comprehensive update of the original plan. The updated Nonpoint Source Management Plan is presented in four volumes and what follows is an executive summary of the Management Plan in general and each volume in particular.

#### **IN GENERAL**

The Nonpoint Source Management Plan sets forth an integrated strategy and identifies programs to prevent, control and reduce pollution from nonpoint sources to protect and improve the quality of the waters of the Commonwealth. The Clean Water Act, Section 319, specifies the contents of the Management Plan to ensure that the plan realistically addresses all of the major categories of nonpoint source pollution in the state. It is important to understand that the plan is an implementation strategy for best management practices with attention given to funding sources and a milestone schedule.

The Massachusetts Nonpoint Source Program has developed as a dynamic and effective program characterized by the nine-key elements described in the "Nonpoint Source Program and Grants Guidance for Fiscal Year 1997 and Future Years" issued by EPA in May of 1996. The State program focuses on strong working partnerships and watershed-based solutions implemented through the Massachusetts Watershed Initiative.

Each year the Congress appropriates funds under Section 319 to assist the states in implementing their approved Nonpoint Source Management Plans. Only those implementation strategies contained in the Management Plan are eligible for federal funding. Implementation activities include regulatory enforcement, technical assistance, education, training, technology transfer and demonstration projects.

The current update of the Nonpoint Source Management Plan makes specific reference to the Coastal Nonpoint Pollution Plan mandated by Section 6217 of the Coastal Zone Reauthorization Act of 1990. This coastal plan was granted provisional approval in 1995 and has been adopted into the Section 319 Management Plan. The Coastal Plan strategies and enforcement policies will be implemented statewide as appropriate within the context and schedule of the Watershed Initiative.

#### **VOLUME I- STRATEGIC SUMMARY**

This volume is a strategic summary of the 1999 updated Nonpoint Source Management Plan. It contains certain sections of the Management Plan that clearly focus on the core Nonpoint Source (NPS) Program and provides a strategic approach for the direction of the program for the foreseeable future. The Management Plan itself is contained in three volumes with over four hundred pages. This report distills much of the Management Plan into a more manageable format and keys into the strategic actions underway. It is hoped that the present document is both readable and usable for watershed teams, local governments, watershed associations, and other state/federal agencies that will be responsible for assisting in the critical nonpoint source implementation effort.

The sections of this summary report represent components of the overall state NPS Strategy as set forth in the NPS Management Plan, revised and upgraded in 1999 in conformance with EPA's Nine-Key Elements. The overall goal of the NPS strategy is to preserve and augment the water quality of the waters of the Commonwealth, which are impaired or threatened by nonpoint source pollution.

This goal will be addressed through the various program components described in the NPS Management Plan and summarized in this report. These program components will:

1. Provide regional guidance and assistance to the watershed teams and public to:
  - a. identify and prioritize NPS problems in each watershed,
  - b. develop specific grant proposals for implementation projects, and
  - c. target funding to these priorities to address and remediate NPS impacts to water quality.
2. Integrate NPS strategic actions into the Massachusetts Watershed Initiative (MWI) to achieve more targeted implementation.
3. Integrate Total Maximum Daily Load (TMDL) recommendations (which are mostly NPS BMPs) into the MWI to achieve effective implementation by the watershed teams and municipalities and thus attain water quality standards in the state's impaired waterbodies.
4. Identify short and long-term strategies for both the NPS Section 319 Program and the Coastal Section 6217 NPS Program and effectuate their implementation through specific segment-by-segment analysis and subsequent remediation by the watershed teams and DEP.

## **VOLUME II- NONPOINT SOURCE PROGRAM and THE MASSACHUSETTS WATERSHED INITIATIVE**

Volume II of the Nonpoint Source Management Plan sets forth a highly focused and structured nonpoint source strategy that is closely integrated into the Massachusetts Watershed Initiative. Each year a certain number of basins are scheduled so as to cover the entire state within five years.

Each year of the five year cycle focuses on a distinct set of activities with a common objective:

- Year 1 - Outreach, education and information gathering
- Year 2 - Water resource monitoring; outreach
- Year 3 - Water resource assessment; outreach
- Year 4 - Implementation of water quality corrective actions and BMPs; outreach
- Year 5 - Continued implementation and evaluation; outreach

Volume I1 of the Nonpoint Source Management Plan describes this statewide watershed initiative and how the 305(b), 303(d), and TMDL process all fit within the five-year cycle.

## **VOLUME III-STATEWIDE PLAN AND GOALS**

Volume III of the Nonpoint Source Management Plan is a technical update and revision of the original 1988 Management Plan. This third volume generally follows the original plan format and updates the state's nonpoint source related programs. Certain sections have been deleted, others added and still others amended to reflect programmatic changes and progress made by Massachusetts since the original plan was written in 1988.

As mentioned under Volume II, emphasis has been given to the emerging Coastal Nonpoint Pollution Plan authorized under Section 6217 of the Coastal Zone Reauthorization Act of 1990. The Coastal Plan has developed and will implement management measures to address nonpoint source categories of pollution common throughout coastal Massachusetts. It has been decided to apply the Coastal Plan's management measures statewide. The Coastal Plan was essentially completed in 1995 and will be incorporated into the 319 Management Plan by way of addendum.

Volume III also stresses the watershed approach, the central theme of DEP's core Nonpoint Source Program as described in Volume II. The watershed approach is likewise a major tenet of the Clean Water Strategy which provides a conceptual framework for DEP's water resource programs.

Section VI of Volume III contains long-term strategies. Some of these long-term strategies are ongoing and some constitute new initiatives. It is felt that these strategies have high potential to prevent and abate nonpoint source pollution in Massachusetts. The long-term strategies are:

#### **LONG-TERM STRATEGIES**

- A. Implement the Massachusetts Watershed Initiative
- B. Title 5 Regulations For the Subsurface Disposal of Sanitary Sewage
- C. Soil Erosion and Sedimentation Control Law
- D. Stormwater Runoff Control
  - 1. Subdivision Control Law
  - 2. Chapter 90 Local Road Improvements
  - 3. State, County, Federal Roads
  - 4. Stormwater Management Policy Handbook
- E. Public Water Supply - Wellhead Protection Program and Other Programs
- F. Bay Programs
  - 1. Buzzards Bay and Mass Bays
  - 2. Waquoit Bay
  - 3. Narragansett Bay
- G. Cape Cod Commission - Sole Source Aquifer Protection.
- H. Rivers Protection Act of 1996.
- I. Outreach and the Mega Manual.
- J. Nutrient Loading Approach to Wastewater Permitting and Disposal.
- K. Develop and Implement TMDLs.
- L. Cooperate with Implementation of Section 6217 CZM Coastal Nonpoint Source Plan.

Volume III further describes how the original Nonpoint Source Advisory Committee has been replaced by functioning Watershed Teams. Each Watershed Team has many non-state representatives which act as individual watershed advisory committees. It is the watershed team, which directs and prioritizes all of the basin activities within the context of the Watershed Initiative.

#### **VOLUME IV-WATERSHED NONPOINT SOURCE ACTION STRATEGIES**

The major purpose of the nonpoint source action strategies is to compile, segment by segment for each major watershed, the 303(d) impairments, other outstanding water quality issues, the data/information sources, and recommendations to address the water quality impairments.

The action strategies are designed to focus on the most pressing situations causing violations of the state's water quality standards based upon dependable and verifiable data sources. This volume of the NPS Management Plan will be updated, on the average, every two years.

The action strategies are meant to primarily assist the DEP regions and the EOEa watershed teams to focus their collective energies on priority water quality impairments. It is not intended to replace or compete in any way with the watershed team action plans.

The action strategies are also focused primarily on nonpoint source causes of the water quality impairments. These compilations are not intended to be encyclopedic regarding watershed water quality issues. The emphasis is upon 303(d) water quality impairments with recommendations of actions to address the situations.

The overall layout and format is intended to be brief and succinct with what we hope is just the essential information presented in an easy to read presentation. Several of the data sources listed are rather weighty volumes which may intimidate some of the more inveterate researchers. Thus the present effort to reduce a large amount of information down to some bare essential action recommendations. Any person interested in more detail is encouraged to consult any of the listed references (sources).



## INTRODUCTION

### Terms and Format

The “waterbody” and “segment” and “location” descriptors are derived from the latest DWM Assessment Report (or equivalent) for the watershed. The terms are originally from the 305(b) report, which is a biannual state-wide report to EPA (and eventually Congress) on the water quality status of the Commonwealth’s water resources. The “303(d)” item (yes or no) tells you whether or not the waterbody (or segment) is listed on the official list of impaired waters for the state. The “impairment” item lists the cause of the impairment. “Other issues” listed for any waterbody are gleaned from the sources of information consulted and relate to water quality issues in one way or another. “Source” notes the references used which are fully listed at the end of each watershed action strategy. References used were those readily available, current and generally comprehensive. It is not an exhaustive list of available references.

The “Recommended NPS Actions” are intended to direct efforts to key actions, which should lead to implementation strategies to improve or restore the water quality impairments.

The “Implemented Actions” are intended to keep track of the progress to date in implementing actions or strategies to improve and/or restore the water quality of the segment.

The overall layout and format is intended to be brief and succinct with what we hope is just the essential information presented in an easy to read presentation. Several of the data sources listed are rather weighty volumes which may intimidate some of the more inveterate researchers. Thus the present effort to reduce a large amount of information down to some bare essential action recommendations. Any person interested in more detail is encouraged to consult any of the listed references (sources).